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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/584,237	05/31/2000	David A. Hillard	CER1019-00	3785
26541	7590	03/29/2005	EXAMINER	
RITTER, LANG & KAPLAN P.O. BOX 2448 SARATOGA, CA 95070			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/584,237	Applicant(s) HILLARD ET AL.	
	Examiner Shick C Hom	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 31 and 36 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10, 21-24, 35, 37-39 and 44-50 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 6, 11, 16, 17, 20, 25, 30, 34, 40 and 43 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 12-15, 18, 19, 26-29, 32, 33, 41 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/21/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-50 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings were received on 10/21/04. These drawings are acceptable.

Specification

3. The disclosure is objected to because of the following informalities: in page 2 of amendments to the specification received on 10/21/04 line 8, update status of U.S. patent application no. 09/478287 as --- (now U.S. Patent No. 6,614,785) - --. Appropriate correction is required.

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 2, 11, 16, 17, 25, 30, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heuer (6,236,660) in view of Gruber et al. (6,563,795).

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Regarding claims 1, 11, 16, 25, 30, 40:

Heuer discloses the method for routing Virtual Tributary (VT) circuits over a SONET/SDH network, wherein the method can be performed by a single Network Element (NE) (see col. 2 line 66 to col. 3 line 19 which recite the use of SONET virtual tributary for transmitting data packets in synchronous transport modules), comprising: identifying a first NE that supports VT cross connections; identifying a second NE that supports VT cross connections; creating a Synchronous Transport Signal STS circuit connection between said first and said second NE; and routing a VT circuit between said two NEs over said STS circuit connection (see col. 4 lines 20-39 which recite sending data packet from the first network element to the nth network element through the intermediate network element which is between the first network element and the nth network element using a virtual container of a synchronous transport module clearly reads on the STS circuit connections between the NEs and routing the VT circuit between the two NEs over the STS connection as claimed).

Regarding claims 2, 11, 17, 25:

Heuer discloses wherein the VT circuit traverses one or more NE intermediate to said first and second NE (see col. 4 lines 20-39 which recite sending data packet from the first

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network element to the nth network element through the intermediate network element which is between the first network element and the nth network element).

For claims 1, 11, 16, 25, 30, and 40 Heuer disclose all the subject matter of the claimed invention with the exception of the step of identifying a first NE that supports VT cross connections, and identifying a second NE that supports VT cross connections as recited in claims 1, 11, 16, 25, 30, and 40.

Gruber et al., in the background of the invention, and from the same or similar fields of endeavor teach that it is known to provide the step of identifying a first NE that supports VT cross connections, and identifying a second NE that supports VT cross connections (see col. 1 lines 22-53 which recite identifying the network elements cross connects to generate a database record of the connection route of the nodes and network elements in the route clearly reads on identifying NE that support VT cross connections). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the step of identifying a first NE that supports VT cross connections, and identifying a second NE that supports VT cross connections as taught by Gruber et al. in the communications method of Heuer. The step of identifying a first NE that supports VT cross connections, and identifying a

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second NE that supports VT cross connections can be implemented by providing this step in the network manager of Heuer. The motivation for providing the step of identifying a first NE that supports VT cross connections; identifying a second NE that supports VT cross connections as taught by Gruber et al. in the communication method of Heuer being that it provides more efficiency for tracing route to locate misroute since a database record of the connection can be used to verify a route after reconfiguration or when a fault occurs.

8. Claims 5, 6, 20, 34, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heuer (6,236,660) and Gruber et al. (6,563,795) in view of Takemura et al. (6,671,271).

Regarding claims 5, 6, 20, 34, 43:

For claims 5, 6, 20, 34, 43, Heuer and Gruber et al. disclose the method and apparatus described in paragraph 7 of this office action. Heuer and Gruber et al. disclose all the subject matter of the claimed invention with the exception of wherein said VT circuit is VT 1.5 circuit or a larger VT circuit and said STS circuit is an STS-1 circuit or larger STS circuit, and wherein if said STS circuit is said STS-1 circuit, said STS-1 circuit is able to route up to 28 VT1.5 circuits as in

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claims 5, 20 and wherein said method is performed manually by a user or is performed automatically by routing and provisioning software as in claims 6, 34, 43.

Takemura et al. from the same or similar fields of endeavor teach that it is known to provide wherein said VT circuit being VT 1.5 circuit or a larger VT circuit and said STS circuit being an STS-1 circuit or larger STS circuit, and wherein if said STS circuit is said STS-1 circuit, said STS-1 circuit is able to route up to 28 VT1.5 circuits (see col. 2 lines 28-36 which recite the payload of the synchronous payload envelope VTs being VT 1.5 and the STS-1 frames used to transmit a VT and col. 14 lines 15-28 which recite the VT mapped STS-1 signal being 28 VTs as in claim 5) and wherein said method is performed manually by a user or is performed automatically by routing and provisioning software (see col. 20 lines 36-52 which recite the downloaded software to the network element). Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein said VT circuit is VT 1.5 circuit or a larger VT circuit and said STS circuit is an STS-1 circuit or larger STS circuit, and wherein if said STS circuit is said STS-1 circuit, said STS-1 circuit is able to route up to 28 VT1.5 circuits and wherein said method is performed manually by a user or is performed automatically by

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routing and provisioning software as taught by Takemura et al. in the method of Heuer and Gruber et al. The VT circuit being VT 1.5 circuit or a larger VT circuit and said STS circuit being an STS-1 circuit or larger STS circuit, and wherein if said STS circuit is said STS-1 circuit, said STS-1 circuit is able to route up to 28 VT1.5 circuits and wherein said method is performed manually by a user or is performed automatically by routing and provisioning software can be implemented by downloading the software to the network element and providing the VT circuit being VT 1.5 circuit or a larger VT circuit and said STS circuit being an STS-1 circuit or larger STS circuit, and wherein if said STS circuit is said STS-1 circuit, said STS-1 circuit is able to route up to 28 VT1.5 circuits in the system and method of Heuer and Gruber et al. The motivation providing wherein said VT circuit is VT 1.5 circuit or a larger VT circuit and said STS circuit is an STS-1 circuit or larger STS circuit, and wherein if said STS circuit is said STS-1 circuit, said STS-1 circuit is able to route up to 28 VT1.5 circuits and wherein said method is performed manually by a user or is performed automatically by routing and provisioning software as taught by Takemura et al. in the communication system and method of Heuer and Gruber et al. being that it provides more efficiency for the system since the system uses

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standard VT 1.5 and STS-1 circuits and whereby the method for routing the VT circuits can be performed automatically by use of software.

Allowable Subject Matter

9. Claims 7-10, 21-24, 35, 37-39, and 44-50 are allowed.

10. Claims 3, 4, 12-15, 18-19, 26-29, 32-33, and 41-42 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

De Boer et al. disclose an optical ring protection having matched nodes and alternate secondary path.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Monday to Friday with alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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